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| <br>National Transportation Safety Board<br><b>FACTUAL REPORT</b><br>AVIATION  |             | NTSB ID: LAX03FA200             |                                  | Aircraft Registration Number: N4493M |  |
|   |             | Occurrence Date: 06/15/2003     |                                  | Most Critical Injury: Fatal          |  |
|   |             | Occurrence Type: Accident       |                                  | Investigated By: NTSB                |  |
| Location/Time   |             |                                 |                                  |                                      |  |
| Nearest City/Place<br>Volcano   | State<br>HI | Zip Code<br>96785               | Local Time<br>0935               | Time Zone<br>HST                     |  |
| Airport Proximity: Off Airport/Airstrip   |             | Distance From Landing Facility: |                                  |                                      |  |
| Aircraft Information Summary  |             |                                 |                                  |                                      |  |
| Aircraft Manufacturer<br>McDonnell Douglas  |             | Model/Series<br>369D            |                                  | Type of Aircraft<br>Helicopter       |  |
| Revenue Sightseeing Flight: Yes   |             |                                 | Air Medical Transport Flight: No |                                      |  |
| Narrative   |             |                                 |                                  |                                      |  |
| <p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>HISTORY OF FLIGHT</p> <p>On June 15, 2003, at 0935 Hawaiian standard time, a McDonnell Douglas Helicopter, Inc., (MDHI) 369D, N4493M, impacted a lava field on the Pulama Pali in the Volcanoes National Park, Volcano, Hawaii. K &amp; S Helicopters, d.b.a. Tropical Tour Helicopters, operated the helicopter under the provisions of 14 CFR Part 135. A post impact fire destroyed the helicopter. The commercial rotorcraft-helicopter certified pilot and three passengers were fatally injured. The local area flight to the volcanoes departed the Hilo International Airport (ITO), Hilo, Hawaii, at 0915. Day visual meteorological conditions prevailed, and a company visual flight rules (VFR) flight plan had been filed.</p> <p>The tour was scheduled as a 45-minute flight that would have entailed flying over the Pu'u O'o Vents, down towards the shoreline to see molten lava flowing into the ocean, and then back to ITO. For this tour, the helicopter was configured for the pilot side door to be removed, and with the passenger side door to remain in place.</p> <p>In an interview with the National Transportation Safety Board investigator-in-charge (IIC), the helicopter loader and manager for Tropical Tour Helicopters stated that on the morning of the accident he had conducted a visual inspection of the helicopter before the pilot arrived. Part of the inspection was to wash the belly of the helicopter off; the manager noted a normal condition with no stains or leaks. The pilot showed up at 0800, in good spirits. He saw the pilot conduct a preflight inspection of the helicopter before repositioning it to the ramp where the passengers were to be loaded. The manager reported that the women were loaded into the backseat first, and were assisted with their seatbelts and headsets. He then went to the front of the helicopter, opened up the pilot's side door, and handed him the flight manifest. The manager then loaded the male into the front seat of the helicopter and secured his seatbelt and the pilot assisted the passenger with the headset. The Tropical Tour Helicopters' manager stated that the flight departed at 0915.</p> <p>A company pilot departed at the same time as the accident pilot. She noted a scattered to broken cloud layer about 4,000 feet and light winds. Upon reaching Paho NDB (non-directional beacon), she turned toward the shoreline and noted that the accident pilot headed towards Pu'u O'o Vent. She recalled hearing occasional calls from the accident pilot reporting his location. As her tour continued, she turned uphill and heard a pilot flying for the Volcanoes National Park asking if anyone had heard a 'mayday' call, and that he thought he had heard a "500's audio warning in the background." She had not heard anything, and attempted to contact the accident pilot via radio. She received no reply.</p> <p>A pilot from Windward Aviation, and a crew of National Park Service (NPS) rangers, were searching for a lost hiker when they heard a mayday call over the common area traffic frequency. The pilot</p> |             |                                 |                                  |                                      |  |
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and flight crew stated that they heard the accident pilot call "Mayday, Mayday, Mayday," and could hear the "engine out" audio tone in the background. No further transmissions were made. At that point, the crew broke off the search for the hiker, and flew around the lava field until they found the accident site.

The pilot and NPS rangers stated that the helicopter was fully engulfed in flames. The NPS rangers dropped 12 buckets of water on the accident site to put out the fire.

**PERSONNEL INFORMATION**

A review of Federal Aviation Administration (FAA) airman records revealed the pilot held a commercial certificate with a rotorcraft-helicopter rating, issued on June 7, 1997. The pilot also held a mechanic certificate with a rating for airframe.

The pilot held a second-class medical certificate that was issued on April 16, 2002, and had no limitations or waivers. At that time the pilot reported a total pilot time of 3,000 hours, with 150 hours in the past 6 months.

The pilot's most recent Part 135 Airman Competency/Proficiency Check was successfully completed on May 30, 2003, and was administered by an FAA inspector from the Honolulu, Hawaii, Flight Standards District Office (FSDO).

According to the operator's new hire information, the pilot completed his indoctrination training on May 30, 2003. His official hire date at the company was May 21, 2003. Prior to the pilot's Part 135 check ride, the director of operations (DO) for the company conducted the SFAR 71 flight check. The DO reported no problems with the flight check. At that time the pilot reported 3,300 hours of total flight time, with 2,800 hours in the accident make and model, 500 hours in the last 12 months, and 30 hours in the last 30 days.


**AIRCRAFT INFORMATION**

The helicopter was a McDonnell Douglas (Hughes) 369D, serial number 570137D. A review of the airplane's logbooks revealed a total airframe time of 7,859.3 hours. The last annual was completed on July 10, 2002; total time recorded at the last 300-hour inspection was 7,780.0 hours; and a total time recorded at the last 100-hour inspection was 7.856.5 hours.

The helicopter was equipped with an Allison 250-C20B engine, serial number CAE 835428. A review of the maintenance records revealed that the compressor section was changed out on the following dates: December 20, 2000 (CAC80158); February 26, 2001 (CAC 33946); September 07, 2002 (CAC33946). At the time of installation in September 2002, the total time since new was reported as 2,343.7 hours at an airframe total time of 6,812.0 hours. The last logged entry in the rotorcraft log was at a total time of 7,850.8 hours. A Safety Board IIC estimated that the compressor section CAC33946 had at least 3,377.9 hours as of June 6, 2003.

Fueling records from Air Service Hawaii - Hilo Station, Hilo, established that the helicopter had last fueled on June 14, 2003, with the addition of 42.2 gallons of Jet A fuel at 0930, and again at 1700, with the addition of 10.6 gallons. There was no fuel service provided to the accident helicopter on the morning of the accident. According to the weight and balance sheet, the flight would have departed with 219 pounds of fuel (50.8 percent).

The Safety Board IIC reviewed the Daily Aircraft Flight Logs from May 1, 2004, to June 6, 2003. There were no unresolved maintenance discrepancies for the helicopter prior to departure on the accident flight. A 25-hour inspection was completed on June 3, 2003, at an aircraft total time of 7,836.1 hours, and 7,926.9 hours total engine time.

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**Narrative (Continued)**

During the 100-hour inspection conducted on May 13, 2003, at an aircraft total time of 7,781.3 hours, and engine total time of 7,870.6 hours, maintenance personnel noted in the DISCREPANCIES/MALFUNCTIONS section "loose stud on engine gearbox turbine attach." The CORRECTIVE ACTION was to remove the engine gearbox part number 6894171, serial number CAG 33861, time since new (TSN) 10,895.3 hours, time since overhaul (TSO) 5,791.2 hours. Gearbox serial number CAG 33731, TSN 7,902.1 hours, "TSO is TSN. Loaner ground run aircraft 30 minutes removed [and] cleaned chip plugs no chips."

The operator reported that the Daily Aircraft Flight Logs were kept in the helicopter until the next inspection, or discrepancy was encountered. The logs from June 7 to the date of the accident were destroyed in the post-impact fire.

A Safety Board investigator, along with FAA inspectors, interviewed a mechanic from K & S Helicopters. He reported that his job was to perform the 25- and 100-hour inspections every Tuesday, Thursday, and Saturday. He was also to work on any maintenance discrepancies reported by the pilots. The mechanic did not perform an aircraft inspection on Saturday June 14th or the day of the accident. He further indicated that on the 14th, the helicopter had been used for firefighting.

The mechanic stated that he performed a 100-hour inspection on June 13, 2003, and noted no discrepancies. This mechanic indicated that he normally did not perform engine maintenance for the company, but would routinely assist when requested for on the job training. He reported having replaced engine components on company aircraft. The mechanic could not recall what components had been overhauled recently, but remembered replacing a gearbox for loose studs about 4 to 6 weeks prior to the accident, and the starter generator had been replaced for overhaul purposes.

The mechanic reported that while he was never provided with a training manual, he and other mechanics were not left alone while working on helicopter without first being trained for that particular job. He also reported that at all times the manufacturer's maintenance manuals were always available and used while working on the helicopters. He noted that the director of maintenance was responsible for updating the revisions to the manuals.

**WRECKAGE AND IMPACT INFORMATION**


The Safety Board IIC, and inspectors from the FAA Honolulu FSDO examined the wreckage at the accident scene on June 16, 2003.

The accident site was located on the Pulama Pali at an active lava flow, approximately 2 miles north of the Chain of Craters road, and about 5 miles south of the Pu'u O'o Vents. The elevation at the accident site was 620 feet mean sea level (msl), with upsloping terrain; about 10 degrees. The primary wreckage was at 19 degrees 19.80 minutes north latitude and 155 degrees 04.97 minutes west longitude.

The helicopter came to rest on a 270-degree magnetic heading, and a 320-degree magnetic bearing to ITO. The fuselage of the helicopter, the main wreckage, was in a small hole (made by the lava). The majority of the helicopter was in a 10-foot radius of the main wreckage. Portions of the landing gear skids and cross tubes were located northeast and upslope of the main wreckage, about 5 feet away. Pieces of Plexiglass windshield, and the passenger side door, were also found upslope of the main wreckage. There was no sign of smoke or fire residue on the Plexiglass windshield or passenger side door.

The tail boom had separated into two pieces, and was laying 5 to 10 feet southeast of the main wreckage. One of the tail rotor blade tips was found downslope of the main wreckage about 50 yards.

According to NPS personnel, one passenger was found outside of the helicopter, upslope, about 10

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feet from the main wreckage. The pilot and the other two passengers were found within the main wreckage.

**MEDICAL AND PATHOLOGICAL INFORMATION**

The Hilo Medical Center Department of Pathology performed autopsies on the pilot and three passengers on June 17, 2003. The cause of death for all occupants was listed as thermal injuries that ranged from 90 to 100 percent of the body due to a helicopter accident. The pilot had a 17.1 percent carbon monoxide level, and the passengers' carbon monoxide levels ranged in levels from 0.5, 0.8, and 1.3 percent.

The Bioaeronautical Sciences Research, Oklahoma City, Oklahoma, performed a toxicological analysis of the pilot from samples obtained during the autopsy. The results of the analysis of the specimens were positive for carbon monoxide, 15 percent detected in blood; positive for cyanide, 0.57 (ug/ml) detected in blood. The results for tested volatiles revealed no ethanol in the urine, and for tested drugs none were detected in the liver.

**TESTS AND RESEARCH****Temporary Flight Restriction (TFR)**

NPS had established a TFR to fight a wildland fire in the park area. The TFR area was setup utilizing GPS coordinates that encompassed the Pu'u O'o vent to the shoreline. The GPS coordinates were as follows:

Upper northwest corner ((3) Via): N19 degrees 23.000 minutes, W155 degrees 13.200 minutes  
 Upper southeast corner ((2) Via): N19 degrees 23.000 minutes, W55 degrees 7.000 minutes  
 Lower southeast corner ((1) Via): N19 degrees 18.890 minutes, W155 degrees 3.300 minutes  
 Lower northwest corner: N19-degrees 16.360 minutes, W155 degrees 7.800 minutes

NPS personnel plotted the coordinates of the accident site and noted that the site was located about 1/2-mile inside the TFR near the lower southeast corner border and the shoreline. He checked the National Fire website to view the TFR information and noted that it had been activated earlier in the week. He then received a phone call from an FAA supervisor at the Honolulu FSDO. He informed the FAA supervisor that the accident site was inside the TFR, and that there was no waiver for tour helicopter operations in the TFR near the lava flow.

**Follow-up Examination**

On June 16, 2003, Windward Aviation Helicopters, Maui, Hawaii, retrieved the helicopter from the lava field. The Safety Board IIC, FAA inspectors, and representatives from MDHI/Boeing Helicopters and Rolls-Royce Engines examined the wreckage at the Civil Air Patrol Hangar at ITO, on June 17 - 19, 2003.

Approximately 20 percent of the airframe was recovered; the rest had been destroyed in the post-impact fire. The cockpit portion of the fuselage, forward of the firewall, sustained fire damage. Flight control continuity from the cockpit to the main rotor and tail rotor could not be established. The anti-torque pedal assembly separated at the attachment fitting, and one pedal had broken. The instrument panel had been destroyed.

The visual inspection of the engine revealed no punctures in the case. The gearbox, the fuel control unit, and fuel pump remained connected and secured to the engine in their respective locations. The third and fourth stage compressor blades were visible with no damage observed to the compressor blades.

The engine had sustained fire damage; however, it remained in place and attached to its mounts and

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the airframe. The lines aft of the firewall were intact and secure at their respective fittings. The lines forward of the firewall sustained fire damage. The fittings and portions of the hoses and lines were in place. The engine was removed from the airframe for further visual inspection. When the fuel lines were removed, no fuel was present in the lines. The fuel filter nozzle screen was removed, and was clean of debris and had not collapsed. The fuel filter was removed, and was clean of debris and absent of fuel.

Drive train continuity to the main rotor head was established, and the static mast remained in place. The main rotor drive shaft had decoupled; however, the sun gear rotated freely. The overrunning clutch functioned properly. The main rotor hub was thermally damaged. The rotating and nonrotating swashplates were burned, and the upper and lower shoes had melted. The strap pack assembly was in place; however, the outside had been thermally distorted. Three of the five main rotor blades remained attached to the main rotor hub. Two blades were separated from the hub and were located in the immediate wreckage area. All of the main rotor blades showed minor leading edge damage. All five of the main rotor blades were delaminated at their respective trailing edges.

The tail boom separated into two pieces. The pitch change housing was thermally destroyed. Both tail rotor blade tips separated from their respective blades about 11 inches from the tips. The lower portion of the vertical stabilizer had crushed inward.

The engine was removed and shipped to Rolls-Royce Engine Services Oakland (RRESO), Oakland, California, for the teardown inspection.

**Engine Examination**

The party members reconvened at RRESO for the engine teardown inspection that was conducted on July 1 and 2, 2003. Also present was the FAA Aircraft Certification Office (ACO) inspector from Chicago, Illinois.

RRESO personnel noted that the bolts for the fuel pump mounting pad were loose; no torque, and that the mounting pad itself had broken. The fracture face was granular and smooth with no shear lips and had broken at the base.


RRESO personnel noted that the compressor case right side bolts had been installed backwards, and there was no damage to the compressor blades, the case or the cone. They also noted compressor blade marks, centrifugal rub, on the diffuser assembly inside the compressor housing, also referred to as "chatter marks." The Rolls-Royce (RR) representative indicated that the chatter marks were consistent with a low rotation at the time of impact. The 6 stage compressor blades showed evidence of bending. There was no further compressor blade damage noted.

The compressor-coupling adapter (CCA) had fractured. The aft mating flange of the CCA remained attached to the spur adapter gearshaft (SAG). The forward end of the CCA remained attached to the compressor impeller.

The gearbox free wheeling unit rotated freely in both directions, and the SAG shaft had sheared below the manufactured shear point.

The fuel control unit and pressure turbine governor showed no evidence of a mechanical malfunction and were bench tested to serviceable limits. A teardown inspection of both the fuel pump and the fuel control unit were performed; both showed evidence of corrosion/rust, but were otherwise unremarkable. A teardown of the gearbox revealed that the gears had remained in place and intact with no evidence of a pre impact malfunction.

The number 2 turbine wheel had some minor cracking of the vanes. The number 3 turbine wheel blade

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tips showed evidence of nozzle to case contact (rub). The 4th stage nozzle and 3rd stage blade track showed rotational rub marks that the RR representative indicated was consistent with a rotation at impact. All of the bearings were present with no apparent mechanical anomalies noted.

The following components with part and serial numbers were shipped to the Safety Board Metallurgical Laboratory, Washington, D.C., for further examination:

Compressor rotor assembly, aft face of the impeller was marked with part number 6890529, assembly serial number HST 4993, and the impeller part number was marked on the forward face with 6876873-V, serial number KR59868 (between the vanes)

Tie bolt was marked with part number 6871259B, serial number 37362

Spur adapter gearshaft (SAG), part number 23031921-D, serial number CG119350

Compressor coupling adapter (CCA), the forward face was marked stamped with part number E23039791-1C and serial number AG6-156, the CCA was also marked with FAA Parts Manufacturer Approval (PMA) (manufactured by Extex LTD).

**Metallurgical Examination**

**Compressor Coupling Adapter (CCA)**

According to the Safety Board Senior Metallurgist, the CCA was circumferentially fractured around the pilot diameter from the aft shoulder. The location corresponds to the forward edge of the internal splines in the aft piece of the adapter. The areas adjacent to the fracture showed evidence of localized fretting. Portions of the pilot diameter showed heavy circumferential rubbing consistent with post fracture rotation within the impeller stub shaft. The metallurgist also noted a band of heavy to severe fretting adjacent to the fracture line. Magnified optical and scanning electron microscope (SEM) examinations revealed that the fracture surfaces also displayed heat colorations from heat tinting from rotational rubbing. Additionally, other undamaged areas displayed fatigue progression, with the fatigue originating on the outer surface of the pilot diameter. The fatigue progressed through the wall of the pilot diameter into the end of the internal splines and circumferentially in both directions around the adapter. The metallurgist conducted a hardness measurement on the large diameter section of the adapter and reported an average hardness of 29.7 HRC, with a specified drawing of a minimum hardness of 30 HRC for the area tested.


**Compressor Impeller**

The impeller remained intact, but had sustained mechanical deformation to the inner diameter of the stub shaft. The metallurgist noted that the damage was consistent with the rotation of the aft piece of the fractured CCA within the stub shaft after it had separated. Fretting damage to the impeller corresponded to the fretting damage previously noted to the CCA. He also noted that the impeller stub shaft had been modified in accordance with the Rolls-Royce Commercial Engine Bulletin (CEB) 1325, which allowed part number 6876873 impellers to be reworked to the shorter stub shaft configuration (part number 23058147 impellers). CEB 1325 also required that the reworked impeller be re-identified to the new part number (23058147); however, he did not find the subject impeller thusly marked.

**Spur Adapter Gearshaft (SAG)**

The SAG was intact and showed evidence of wear on the entire lengths of the drive flanks of the forward and aft splines, with slight wear steps visible near the roots.



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The metallurgist noted that the CCA was a PMA-manufactured part with no material or mechanical discrepancies noted. Research revealed that Rolls Royce has at least 12 documented cases of cracked or fractured couplings that also initiated fretting on the pilot diameter. The Safety Board has examined two other cases: SEA03TA116 and FTW01LA036. Additionally, two of the CCA's identified were PMA parts manufactured by Extex, Ltd.

The full metallurgical report is attached to this report.

**ADDITIONAL INFORMATION**

The IIC released the wreckage to the owner's representative.

Special Federal Aviation Regulations Part 71 (SFAR 71)

According to SFAR 71 all air tour operations on the island of Hawaii within 25 statute miles of ITO were required. The certificate of Authorization was originally issued on October 27, 1997.

In the definition section of the Operations Specifications and SFAR Manual, SUITABLE LANDING AREA was defined as: "Means an area, which is designated by the operator and accepted by the FAA, at a specific site that provides an emergency landing area for a helicopter in the event of an engine failure. When designating an emergency landing area, the operator will select an area that is available within the normal autorotative gliding distance of the helicopter according to the RFM [Rotorcraft Flight Manual]."

Also defined was RAW TERRAIN: Terrain devoid of any person, structures, vehicles, or vessels.

In the SPECIAL PROVISIONS section, it is stated in part that the following conditions must also be met while conducting operations under the FAA approved deviation to SFAR 71:

3. All flights must maintain a minimum of 500 feet below the clouds
5. All flights must maintain a minimum horizontal distance ("Standoff") of not less than 500 feet from RAW TERRAIN.
14. Specific sites approved for less than 1,000 feet agl (above ground level)
  - a. Any time the aircraft is operated at less than 1,000 feet agl it must be in a position to reach a designated emergency landing area in the event of an engine failure, which includes ridge-crossing points.
  - b. All aircraft shall be operated not less than 500 feet agl or above the top of the height velocity diagram, whichever is higher.


According to the operator and the FAA, the company had recently received authorization to lower the cloud distance from 500 feet down to 300 feet, and was found in the Operations Specifications Manual.

In section 2, titled SFAR 71 Enroute Segments and Procedures, of the Operator's SFAR 71 Procedures manual, under subsection 2-2, titled Site Specific Areas and Reporting Points

In the operator's SFAR 71 Procedures Manual, under section 2 titled SFAR 71 Enroute Segments and Procedures, subsection 2-2, titled Site Specific Areas and Reporting Points for the Pu'u O'o Vent the following information was authorized:

Site 3: Pu'u O'o (elevation 2,800 feet) to the lava trees (elevation 1,700 feet) to the shoreline are between Kalapana and Kamoamao, excluding Royal Gardens Subdivision, within the current (since January 3, 1983) lava fields. Pilots were required to maintain a high vigilance for geologists and other foot traffic, with a required standoff of 1,500 feet from persons on the ground.

Section 3 titled Emergency/Suitable Forced Landing Sites in the SFAR 71 Procedures Manual the

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following had been authorized:

A picture of the area showing the terrain as well as the following information for SITE 3: around the base of Pu'u O'o Vent the terrain consists of A'a and Pahoeohoe lava flows that extend eastward to the lava trees and down slope to the ocean providing suitable forced landing sites.

According to the FAA, the operator has to locate and identify alternate/emergency landing sites in order for their SFAR 71 deviations to be approved in the operations manual. The FAA also reported that there were no requirements for the FAA to reevaluate the alternate/emergency landing sites throughout the years.

**National Park Service (NPS) Information**

According to NPS personnel, all helicopter operations for June 15 and 16, 2003, were handled by the helicopter manager and crew that were working an ongoing fire in the park.

**Federal Aviation Administration**

As a result of this accident, the FAA ACO issued three Special Airworthiness Information Bulletins on March 24, 2004.

NE-04-56 Rolls-Royce Corporation (Allison Engine Company) Compressor Coupling Adapter Model 250 Series Engines

NE-04-57 Alcor Engine Company's Compressor Splined Adapter Coupling

NE-04-58 Extex, Ltd., Compressor Splined Adapter Coupling

Airworthiness Directive (AD) 2004-26-09 was issued on February 8, 2005, which called for the following companies to remove the compressor coupling adapters with certain part numbers from the affected Rolls-Royce engines: Alcor Engine Company, Extex, Ltd., Superior Air Parts, and Rolls-Royce Corporation.

Alcor Engine Company was instructed to comply with the following scheduled removal of the CCA: Compressor Coupling Adapters with 600 or more hours since new, or the operating hours or unknown or can not be determined, or for CCA's with fewer than 600 operating hours since new are to be removed at the next service, but not to exceed 649 operating hours since new.


Extex, Ltd., and Superior Air Parts with the following method of compliance: CCA's with operating hours that are unknown and cannot be determined are to be removed at next service but not to exceed 50 additional operating hours. For CCA's with 600 or more operating hours since new are to be removed from service not to exceed an additional 100 operating hours. For couplings with fewer than 600 operating hours since new are to be removed from service not to exceed 150 additional operating hours.


Rolls-Royce Compressor Coupling Adapters part numbers 23039791-1, -2, -3 remove from service next time to the compressor rotor is disassembled for any reason, but not later than March 1, 2012.


The AD was issued as a result of nine reported engine shutdowns caused by a Compressor Coupling Adapter failure.

Updated on Jan 12 2009 12:38PM



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|   |                                     | Occurrence Type: Accident                  |  |                                     |              |
| <b>Landing Facility/Approach Information</b>  |                                     |  |  |                                     |              |
| Airport Name  | Airport ID:                         | Airport Elevation<br>Ft. MSL               | Runway Used<br>N/A                           | Runway Length                       | Runway Width |
| Runway Surface Type:  |                                     |  |  |                                     |              |
| Runway Surface Condition:   |                                     |  |  |                                     |              |
| Approach/Arrival Flown: NONE  |                                     |  |  |                                     |              |
| VFR Approach/Landing: Forced Landing  |                                     |  |  |                                     |              |
| <b>Aircraft Information</b>   |                                     |  |  |                                     |              |
| Aircraft Manufacturer<br>McDonnell Douglas  |                                     | Model/Series<br>369D                       |  | Serial Number<br>570137D            |              |
| Airworthiness Certificate(s): Normal  |                                     |  |  |                                     |              |
| Landing Gear Type: Skid   |                                     |  |  |                                     |              |
| Amateur Built Acft? No  | Number of Seats: 5                  | Certified Max Gross Wt. 3000 LBS           |  | Number of Engines: 1                |              |
| Engine Type:<br>Turbo Shaft   | Engine Manufacturer:<br>Rolls-Royce |  | Model/Series:<br>250 C20B                    | Rated Power:<br>420 LBS             |              |
| <b>- Aircraft Inspection Information</b>  |                                     |  |  |                                     |              |
| Type of Last Inspection<br>Continuous Airworthiness   | Date of Last Inspection<br>06/2003  | Time Since Last Inspection<br>7836.1 Hours |  | Airframe Total Time<br>7859.3 Hours |              |
| <b>- Emergency Locator Transmitter (ELT) Information</b>  |                                     |  |  |                                     |              |
| ELT Installed?/Type Yes /   |                                     | ELT Operated? No                           | ELT Aided in Locating Accident Site? No      |                                     |              |
| <b>Owner/Operator Information</b>   |                                     |  |  |                                     |              |
| Registered Aircraft Owner<br><br>K & S Helicopters, Inc.  |                                     | Street Address<br>P.O. Box 5371            |  |                                     |              |
|   |                                     | City<br>Kailua-Kona                        | State<br>HI                                  | Zip Code<br>96745                   |              |
| Operator of Aircraft<br><br>K & S Helicopters, Inc.   |                                     | Street Address<br>P.O. Box 5371            |  |                                     |              |
|   |                                     | City<br>Kailua-Kona                        | State<br>HI                                  | Zip Code<br>96745                   |              |
| Operator Does Business As: Tropical Helicopters   |                                     |  | Operator Designator Code: K2DA               |                                     |              |
| <b>- Type of U.S. Certificate(s) Held:</b>  |                                     |  |  |                                     |              |
| Air Carrier Operating Certificate(s): On-demand Air Taxi  |                                     |  |  |                                     |              |
| Operating Certificate:  |                                     |  | Operator Certificate: Aircraft External Load |                                     |              |
| Regulation Flight Conducted Under: Part 135: Air Taxi & Commuter  |                                     |  |  |                                     |              |
| Type of Flight Operation Conducted: Non-scheduled; Domestic; Passenger Only   |                                     |  |  |                                     |              |
| <div style="display: flex; justify-content: space-between;"> <span>FACTUAL REPORT - AVIATION</span> <span>Page 2</span> </div>  |                                     |  |  |                                     |              |

|  <b>National Transportation Safety Board</b><br><b>FACTUAL REPORT</b><br><b>AVIATION</b>   |                     | NTSB ID: LAX03FA200            |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
|---|---------------------|--------------------------------|------------------------|---------------------------|------------------------------------|----------------------|-----------|---------------------|------------------------|-----------------------|-------|------------|--|------------|--------|------------------|------------|-----------|------------------|------|------|--|--|--|--|--|------|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|--|----------------------|--|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--|--------------|----|--|--|--|--|--|--|----|--|--|---------------|--|--|--|--|--|--|--|--|--|--|
|   |                     | Occurrence Date: 06/15/2003    |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
|   |                     | Occurrence Type: Accident      |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| <b>First Pilot Information</b>  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Name  |                     | City                           |                        | State                     | Date of Birth                      | Age                  |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| On File   |                     | On File                        |                        | On File                   | On File                            | 35                   |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Sex: M  | Seat Occupied: Left | Occupational Pilot? Yes        |                        |                           | Certificate Number: On File        |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Certificate(s): Commercial  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Airplane Rating(s): None  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Rotorcraft/Glider/LTA: Helicopter   |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Instrument Rating(s): None  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Instructor Rating(s): None  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Current Biennial Flight Review? 04/2003   |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Medical Cert.: Class 2  |                     | Medical Cert. Status:          |                        |                           | Date of Last Medical Exam: 04/2002 |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| <table border="1"> <thead> <tr> <th rowspan="2">- Flight Time Matrix</th> <th rowspan="2">All A/C</th> <th rowspan="2">This Make and Model</th> <th rowspan="2">Airplane Single Engine</th> <th rowspan="2">Airplane Multi-Engine</th> <th rowspan="2">Night</th> <th colspan="2">Instrument</th> <th rowspan="2">Rotorcraft</th> <th rowspan="2">Glider</th> <th rowspan="2">Lighter Than Air</th> </tr> <tr> <th>Actual</th> <th>Simulated</th> </tr> </thead> <tbody> <tr> <td>Total Time</td> <td>3300</td> <td>2800</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3300</td> <td></td> <td></td> </tr> <tr> <td>Pilot In Command(PIC)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Instructor</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Instruction Received</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 90 Days</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 30 Days</td> <td>30</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>Last 24 Hours</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |                     |                                |                        |                           |                                    | - Flight Time Matrix | All A/C   | This Make and Model | Airplane Single Engine | Airplane Multi-Engine | Night | Instrument |  | Rotorcraft | Glider | Lighter Than Air | Actual     | Simulated | Total Time       | 3300 | 2800 |  |  |  |  |  | 3300 |  |  | Pilot In Command(PIC) |  |  |  |  |  |  |  |  |  |  | Instructor |  |  |  |  |  |  |  |  |  |  | Instruction Received |  |  |  |  |  |  |  |  |  |  | Last 90 Days |  |  |  |  |  |  |  |  |  |  | Last 30 Days | 30 |  |  |  |  |  |  | 30 |  |  | Last 24 Hours |  |  |  |  |  |  |  |  |  |  |
| - Flight Time Matrix  | All A/C             | This Make and Model            | Airplane Single Engine | Airplane Multi-Engine     | Night                              |                      |           |                     |                        |                       |       | Instrument |  |            |        |                  | Rotorcraft | Glider    | Lighter Than Air |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
|   |                     |                                |                        |                           |                                    | Actual               | Simulated |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Total Time  | 3300                | 2800                           |                        |                           |                                    |                      |           | 3300                |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Pilot In Command(PIC)   |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Instructor  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Instruction Received  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Last 90 Days  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Last 30 Days  | 30                  |                                |                        |                           |                                    |                      |           | 30                  |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Last 24 Hours   |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Seatbelt Used? Yes  |                     | Shoulder Harness Used? Unknown |                        | Toxicology Performed? Yes |                                    | Second Pilot? No     |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| <b>Flight Plan/Itinerary</b>  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Type of Flight Plan Filed: Company VFR  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Departure Point   | State               |                                |                        |                           | Airport Identifier                 | Departure Time       | Time Zone |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Hilo  | HI                  |                                |                        |                           | ITO                                | 0915                 | HST       |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Destination   | State               |                                |                        |                           | Airport Identifier                 |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Local Flight  |                     |                                |                        |                           | ITO                                |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Type of Clearance: None   |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Type of Airspace:   |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| <b>Weather Information</b>  |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Source of Wx Information:   |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |
| Unknown   |                     |                                |                        |                           |                                    |                      |           |                     |                        |                       |       |            |  |            |        |                  |            |           |                  |      |      |  |  |  |  |  |      |  |  |                       |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |              |    |  |  |  |  |  |  |    |  |  |               |  |  |  |  |  |  |  |  |  |  |


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| <br><b>National Transportation Safety Board</b><br><b>FACTUAL REPORT</b><br><b>AVIATION</b> |  |  | NTSB ID: LAX03FA200         |  |  |
|  |  |  | Occurrence Date: 06/15/2003 |  |  |
|  |  |  | Occurrence Type: Accident   |  |  |

|  |                  |                     |  |                                 |                              |
|--|------------------|---------------------|--|---------------------------------|------------------------------|
| <b>Weather Information</b>                                     |                  |                     |  |                                 |                              |
| WOF ID   | Observation Time | Time Zone           | WOF Elevation  | WOF Distance From Accident Site | Direction From Accident Site |
| ITO  | 0953             | HST                 | 38 Ft. MSL   | 10 NM                           | 320 Deg. Mag.                |
| Sky/Lowest Cloud Condition: Scattered                          |                  |                     | 8500 Ft. AGL   | Condition of Light: Day         |                              |
| Lowest Ceiling: None   |                  |                     | Ft. AGL  | Visibility: 10 SM               | Altimeter: 30.06 "Hg         |
| Temperature: 27 °C   |                  | Dew Point: 20 °C    | Weather Conditions at Accident Site: Visual Conditions |                                 |                              |
| Wind Direction: 20   |                  | Wind Speed: 8       |  | Wind Gusts:                     |                              |
| Visibility (RVR): Ft.  |                  | Visibility (RVV) SM |  |                                 |                              |
| Precip and/or Obscuration:<br>No Obscuration; No Precipitation |                  |                     |  |                                 |                              |

|                             |  |                       |  |                          |  |
|-----------------------------|--|-----------------------|--|--------------------------|--|
| <b>Accident Information</b> |  |                       |  |                          |  |
| Aircraft Damage: Destroyed  |  | Aircraft Fire: Ground |  | Aircraft Explosion: None |  |

|                         |       |         |       |      |       |  |
|-------------------------|-------|---------|-------|------|-------|--|
| - Injury Summary Matrix | Fatal | Serious | Minor | None | TOTAL |  |
| First Pilot             | 1     |         |       |      | 1     |  |
| Second Pilot            |       |         |       |      |       |  |
| Student Pilot           |       |         |       |      |       |  |
| Flight Instructor       |       |         |       |      |       |  |
| Check Pilot             |       |         |       |      |       |  |
| Flight Engineer         |       |         |       |      |       |  |
| Cabin Attendants        |       |         |       |      |       |  |
| Other Crew              |       |         |       |      |       |  |
| Passengers              | 3     |         |       |      | 3     |  |
| - TOTAL ABOARD -        | 4     |         |       |      | 4     |  |
| Other Ground            |       |         |       |      |       |  |
| - GRAND TOTAL -         | 4     |         |       |      | 4     |  |

|                           |  |        |
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| <br><b>National Transportation Safety Board</b><br><b>FACTUAL REPORT</b><br><b>AVIATION</b>   | NTSB ID: LAX03FA200         |  |
|  | Occurrence Date: 06/15/2003 |  |
|  | Occurrence Type: Accident   |  |
| <b>Administrative Information</b>  |                             |  |
| Investigator-In-Charge (IIC)<br>Tealeye Cornejo  |                             |  |
| <p>Additional Persons Participating in This Accident/Incident Investigation:</p> <p>Edward Valdez<br/>Federal Aviation Administration<br/>Honolulu, HI</p> <p>Robert Drake<br/>Federal Aviation Administration<br/>Washington, DC</p> <p>Adrian Booth<br/>Boeing (MDHI)<br/>Mesa, AZ</p> <p>Robert Ketchum<br/>Rolls-Royce Corporation<br/>Indianapolis, IN</p> <p>Cal Dorn<br/>K &amp; S Helicopters<br/>Hilo, HI</p> |                             |  |
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